

STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Inventor/Owner: UT-Battelle, LLC
Application No./Patent No.: 09/399,232 Filed/Issue Date: Sep. 17, 1999
Entitled: SYNTHESIS OF CONDENSED PHASES CONTAINING POLYCYCLIC AROMATIC *
UT-Battelle, LLC, a limited liability company
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

*** HYDROCARBONS, FULLERENES AND NANOTUBES**

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.
The extent (by, percentage) of its ownership interest is _____ %

in the patent application/patent identified above by virtue of either:

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: Peter T.A. Reilly To: Lockheed-Martin Energy Research Corp.

The document was recorded in the United States Patent and Trademark Office at
Reel 010269, Frame 0134

2. From: Lockheed-Martin Energy Research Corp. To: UT-Battelle, LLC
and a copy thereof is attached.

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

06-15-04
Date

George L. Craig

Typed or printed name

[Signature]
Signature

General Patent Counsel, Intellectual Property

Title

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

**ASSIGNMENT OF SUBJECT INVENTIONS, U.S. AND FOREIGN PATENT APPLICATIONS
AND ISSUED FOREIGN PATENTS OF SUBJECT INVENTIONS**

WHEREAS, LOCKHEED MARTIN ENERGY RESEARCH CORPORATION, a corporation of the State of Delaware, having an office at Post Office Box 2008, Oak Ridge, Tennessee 37831-8243 (hereinafter referred to as "LMER"), has acquired by assignment from employees of LMER and/or Lockheed Martin Energy Systems, Inc. (hereinafter referred to as "LMES") the undivided right, title, and interest of Subject Inventions, United States and foreign patent applications of Subject Inventions and United States and foreign patents of Subject Inventions of sole or joint inventor employees of OAK RIDGE NATIONAL LABORATORY (hereinafter referred to as "ORNL") managed by LMER or LMES at the time said inventor employees conceived or reduced to practice said Subject Inventions under Prime Contract Nos. DE-AC05-96OR22464 and/or DE-AC05-84OR21400 with the United States Department of Energy;

WHEREAS, LMER has been replaced effective April 1, 2000 by a successor contractor, UT-BATTELLE, LLC (hereinafter "UT-Battelle"), a limited liability company organized under the laws of the State of Tennessee, having an office at 111-B Union Valley Road, Oak Ridge, Tennessee 37831-6498, which shall manage ORNL under its Prime Contract No. DE-AC05-00OR22725 with the United States Department of Energy;

WHEREAS, LMER is obligated under its aforesaid Prime Contract to transfer title to UT-Battelle, as one package, to the extent LMER has retained title, in all said Subject Inventions, said U.S. and foreign patent applications of said Subject Inventions and all said U.S. and foreign patents of said Subject Inventions, all of the foregoing listed in the attached Appendix A (U.S. Subject Inventions, Patent Applications and Issued Patents) and Appendix B (Foreign Patent Applications and Issued Patents).

WHEREAS, LMER, pursuant to its said aforementioned Prime Contract, wishes to assign to UT-Battelle (hereinafter "ASSIGNEE") the aforesaid undivided right, title and interest of said Subject Inventions, said U.S. and foreign patent applications of said Subject Inventions and said U.S. and foreign patents of said Subject Inventions; and

NOW, THEREFORE, in accordance with Prime Contract No. DE-AC05-96OR22464 between LMER and the U.S. Department of Energy, LMER hereby assigns to ASSIGNEE said undivided right, title and interest in said Subject Inventions, all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, any Letters Patent and/or patent applications on said Subject Inventions that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent and/or patent applications that are divisions, reissues, continuations, renewals, substitutions, reexaminations, or extensions of any Letters Patent or applications therefor on said Subject Inventions.

Further, LMER hereby agrees: (1) to communicate to said ASSIGNEE or its representatives any facts known to it respecting said Subject Inventions, said patent applications of said Subject Inventions and said patents of said Subject Inventions; (2) to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitution, renewal, reexamination, extension and reissue applications therefor; (3) to execute all necessary assignment papers causing any and all of said patent applications to be issued to said ASSIGNEE and any and all of said Letters Patent to be transferred to said ASSIGNEE; and (4) to make all rightful oaths and

generally do everything possible enabling said ASSIGNEE and its representatives to obtain and enforce proper protection for said Subject Inventions, said patent applications of said Subject Inventions and said patents of said Subject Inventions in the United States of America and in any and all foreign countries.

LMER further agrees that the terms, covenants and conditions of this Assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on it, its heirs, legal representatives, assigns and successors in interest.

Assignor: LOCKHEED MARTIN ENERGY RESEARCH CORPORATION

By: WMA

Title: President

Date: APRIL 12, 2001

State of NEW JERSEY

County of CAMDEN

On this 12 day of APRIL, 2001, before me a Notary Public in and for the County and State aforesaid, appeared W.C. HAIGHT to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledges that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

Barbara A. Spina
Notary Public
My Commission expires: 2/16/05

[SEAL]

BARBARA A. SPINA
Notary Public
State of New Jersey
County of Camden
Commission Expires Feb. 16, 2005

Assignee: UT-BATTELLE, LLC

By: George L. Craig

Title: General Patent Counsel

Date: 4-18-01

State of Tennessee)

County of Anderson)

On this 18th day of April, 2001, before me a Notary Public in and for the County and State aforesaid, appeared George L. Craig to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledges that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

James Howe
Notary Public
My Commission expires: 3-2-02

[SEAL]



Patent No.	App. No.	Inventor	Filed	Pub. No.	Pub. Date	Status	Class	IPC Class	IPC Class Type	IPC Class
074	09/253,166	Apparatus and Methods for a Human De-Ampulifer System	04-Jul-00	04-Jul-00	Granted	0	US	ORD	Needl	12022.00 04
0610	08/804,174	WORKSTATION LOCK AND ALARM SYSTEM	21-Feb-97	11-Jan-00	Granted	0	US	ORD	Needl	12022.00 02
0641	08/398,081	Improved Heat Pump Water Heater and Method of Making the Same	15-Sep-98		Pending	0	US	ORD	Needl	12022.00 13
0667	09/399,12E+09 232	Condensed Phase Synthesis of Fullerenes and Nanotubes	17-Sep-99		Pending	0	US	ORD	Needl	12022-0009
0667	08/400,049	Non-Radiative Methods for Chemical Cleavage Sequencing and Fractionation of Nucleic Acids	21-Sep-99	26-Dec-00	Pending	0	US	ORD	Needl	12022-0008
0667	12E+08	Non-Radiative Methods for Chemical Cleavage Sequencing and Fractionation of Nucleic Acids			Unfiled	1	US	CIP	Needl	
98001866	08/396,638	Apparatus and Methods For Continuous Beam Fourier Transform Mass Spectrometry	15-Sep-99		Pending	0	US	ORD	Needl	12022-0012
98100034	08/253,436	Apparatus and Methods for a Human Extender METHOD AND APPARATUS FOR SOLVING COMPLEX AND COMPUTATIONALLY INTENSIVE INVERSE PROBLEMS IN REAL-TIME	18-Feb-99		Pending	0	US	ORD	needl	12022.00 05
98100219	08/903,068	Method For Using Global Optimization To The Estimation Of Surface-Consistent Residual Solids	30-Jul-97		Pending	1	US	ORD	Needl	12022.00 03
98100225	08/395,536	Refrigerator Heat Pump Water Heater	14-Sep-99		Pending	0	US	ORD	Needl	12022-0010
98100230	08/396,696	Method and Apparatus of Spectro-Acoustically Enhanced Ultrasonic Detection For Diagnostics	15-Sep-99		Pending	0	US	ORD	Needl	12022-0016
98100335	08/390,132	Apparatus and Method for Controlling Evaporator Coil Defrosting	03-Sep-99		Pending	0	US	ORD	Needl	12022.00 07
98100510	08/396,071	Apparatus and Method for Evaporator Defrosting	15-Sep-99		Pending	0	US	ORD	Needl	12022.00 15US
98100553	08/396,062	Apparatus and Method for Evaporator Defrosting	15-Sep-99		Pending	0	US	ORD	Needl	12011-0014

Needle Foreign Patent Applications

UTB Case Number	Title	Application Number
96100335	Apparatus of Spectro-Acoustically Enhanced Ultrasonic...	PCT/US00/23524
96100230	Refrigerator Heat Pump Water Heater	US00/24895
96100510	Apparatus and Method for Controlling Evaporator Coil Defrosting	US00/23453
96100553	Apparatus and Method for Evaporator Defrosting	US00/24893
1200000610	Pump Water Heater and Method of Making the Same	US00/24894

DELEGATION OF AUTHORITY

George L. Craig

General Patent Counsel, Intellectual Property
UT-Battelle, LLC

This Delegation of Authority sets forth your authority to act on behalf of UT-Battelle, LLC, in the ordinary course of your business activities. In carrying out the responsibilities of your position, integrity, honesty, and a continuing commitment to the highest standards of ethics are paramount. In addition, the exercise of these authorities must be in compliance with the Corporation's Policies and Procedures and the terms and conditions of UT-Battelle's Prime Contract No. DE-AC05-00OR22725.

POLICIES AND PROCEDURES, INCLUDING THOSE IN THIS DELEGATION OF AUTHORITY, ARE NEVER SUBSTITUTES FOR SOUND BUSINESS JUDGMENT. SUCH JUDGMENT MAY INCLUDE OBTAINING EXECUTIVE APPROVALS AND STAFF REVIEW (WHICH ARE NOT NECESSARILY REQUIRED BY DELEGATIONS OF AUTHORITY OR OTHER CORPORATE POLICIES AND PROCEDURES), WHERE THE FINANCIAL OR PUBLIC IMPACT OF A PARTICULAR TRANSACTION IS UNUSUALLY SIGNIFICANT.

It is your responsibility to redelegate the authorities contained in this delegation as authorized below and as necessary and appropriate to carry out the responsibilities of your position. All Delegations of Authority must be in writing and properly filed with the UT-Battelle Office of General Counsel.

PROCUREMENT OF OUTSIDE LEGAL COUNSEL SERVICES

You have the authority to retain competent legal counsel for advice and assistance in intellectual property matters, excluding litigation.

SEEKING AND SECURING PROTECTION OF INTELLECTUAL PROPERTY

You have the authority to execute and deliver, in the name of and on behalf of UT-Battelle, powers of attorney, affidavits, certifications, judicial and administrative filings, and any and all other documents of whatever nature that may be required or helpful in seeking and securing protection, in U.S. and/or foreign jurisdictions, of all forms of intellectual property acquired by or obtained on behalf of UT-Battelle. This includes but is not limited to documents authorizing charges against the Deposit Account of UT-Battelle in the United States Patent and Trademark Office. This authority may be further redelegated by you.

MANAGEMENT OF INTELLECTUAL PROPERTY

You have the authority, for the sole purpose of discharging UT-Battelle's obligations pursuant to contracts with the Department of Energy, to:

- (1) Negotiate, execute, modify, and terminate, on behalf of UT-Battelle, cooperative or collaborative research and development agreements, licenses, and all other forms of documentation relating to the acquisition, receipt, sale, exchange, disclosure, transfer, use, and licensing of all forms of intellectual property; and

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- (2) Pay required fees and taxes that are imposed by governmental entities relating to the protection of all forms of intellectual property.

This authority may be further redelegated by you.

REDELEGATIONS

Whenever any delegated authority is redelegated to others, the further delegation will specify the scope of authority and the names and/or titles of the individuals to whom that redelegation has been made and will only become effective when properly filed as described below.

FILINGS OF DELEGATIONS

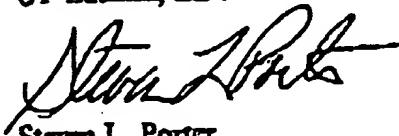
This delegation is effective when signed.

EXPIRATION

This delegation is void if you are reassigned to a position that reports to an individual other than the undersigned. If the undersigned is reassigned, this delegation remains valid pending issuance of a new delegation that must be issued as soon as possible.

This Delegation of Authority supersedes any previously issued standing Delegation of Authority.

UT-Battelle, LLC



Steven L. Porter
Vice President and General Counsel

Date: 6/19/00